

Message

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**From:** Empey Eric Harford [Empey.Eric@deme-group.com]  
**Sent:** 1/26/2022 2:30:36 PM  
**To:** Wortman, Eric [Wortman.Eric@epa.gov]; Suhovsky Edward [Suhovsky.Edward@deme-group.com]  
**Subject:** RE: Emissions : EPA- Offshore Operational Requirements

Morning Eric,

The idea of the meeting is initially for introduction purposes for EPA to understand who DEME is, what contracts we are executing, with what assets and to discuss general topics and/or special requirements we should be aware of while operating our vessels in US Waters.

We have prepared a presentation which we will share during the call and did not send, due to the size of said document. We can look at compressing the documents later and can send via email.

Respects to project locations and applicable regions, please note the following:

- Vineyard Wind 1 (Vineyard Wind): Massachusetts, South of Marthas Vineyard
- South Fork (Orsted): New York (Long Island) to Rhode Island.
- Coastal Virginia: (Dominion) Offshore Newport News

Thanks again for making time for us and we look forward to speaking to you and your team.

Kind regards,

Eric H. Empey | Director of Operations

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**From:** Wortman, Eric <Wortman.Eric@epa.gov>

**Sent:** Tuesday, January 25, 2022 10:16 AM

**To:** Suhovsky Edward <Suhovsky.Edward@deme-group.com>; Empey Eric Harford <Empey.Eric@deme-group.com>

**Subject:** RE: Emissions : EPA- Offshore Operational Requirements

**ATTENTION:** This is an external email. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Eric & Ed,

In addition to my questions below, do you have an agenda or list of topics you want to discuss tomorrow?

Thanks,

Eric

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Eric Wortman  
U.S. EPA Region 1  
5 Post Office Square, Suite 100  
Boston, Massachusetts 02109  
Telephone: (617) 918-1624 | Email: [wortman.eric@epa.gov](mailto:wortman.eric@epa.gov)

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**From:** Wortman, Eric  
**Sent:** Monday, January 24, 2022 10:15 AM  
**To:** Suhovsky Edward <[Suhovsky.Edward@deme-group.com](mailto:Suhovsky.Edward@deme-group.com)>  
**Subject:** RE: Emissions : EPA- Offshore Operational Requirements

Good morning Ed,

Eric mentioned a couple other projects on the east coast in his meeting request. I'd like to extend the invite for Wednesday's meeting to other [EPA regional offices](#) if appropriate. Are the projects Eric is referencing all in the Massachusetts/Rhode Island area (EPA Region 1)? If you have projects in the NY/NJ area, I will invite a representative from Region 2 and the Virginia area would be Region 3. Let me know.

Also, I invited a representative from EPA's headquarters Office of Transportation and Air Quality that specializes in EPA engine regulations. I would also to have our a legal representative from our Office of Regional Counsel present if that's okay with you because he works closely with us on these projects. I'm trying to keep the meeting somewhat small, but also want the appropriate folks on the line for efficiency.

Thanks,

Eric

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**From:** Empey Eric Harford <[Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)>  
**Sent:** Friday, January 14, 2022 11:43 AM  
**To:** Wortman, Eric <[Wortman.Eric@epa.gov](mailto:Wortman.Eric@epa.gov)>  
**Cc:** Bird, Patrick <[Bird.Patrick@epa.gov](mailto:Bird.Patrick@epa.gov)>; Kipka, Undine <[kipka.undine@epa.gov](mailto:kipka.undine@epa.gov)>; Dain, Gregory <[Dain.Greg@epa.gov](mailto:Dain.Greg@epa.gov)>; Howlett, Careyanne <[Howlett.Careyanne@epa.gov](mailto:Howlett.Careyanne@epa.gov)>; Suhovsky Edward <[Suhovsky.Edward@deme-group.com](mailto:Suhovsky.Edward@deme-group.com)>  
**Subject:** Re: Emissions : EPA- Offshore Operational Requirements

Eric,

Thanks for the feedback. Wednesday the 26th @ 10am is good for us.  
I will send a TEAMS request to those in copy and we will send a presentation at some point next week for discussion topics to discuss on the call.

Thanks again for your support and we look forward to speaking with you.

Sincerely,

Eric H Empey

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**From:** Wortman, Eric <[Wortman.Eric@epa.gov](mailto:Wortman.Eric@epa.gov)>  
**Sent:** Friday, January 14, 2022 8:09:08 AM  
**To:** Empey Eric Harford <[Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)>  
**Cc:** Bird, Patrick <[Bird.Patrick@epa.gov](mailto:Bird.Patrick@epa.gov)>; Kipka, Undine <[kipka.undine@epa.gov](mailto:kipka.undine@epa.gov)>; Dain, Gregory <[Dain.Greg@epa.gov](mailto:Dain.Greg@epa.gov)>; Howlett, Careyanne <[Howlett.Careyanne@epa.gov](mailto:Howlett.Careyanne@epa.gov)>; Suhovsky Edward <[Suhovsky.Edward@deme-group.com](mailto:Suhovsky.Edward@deme-group.com)>  
**Subject:** RE: Emissions : EPA- Offshore Operational Requirements

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Hi Eric,

Sorry for the delayed reply, I was in a workshop most of the week. Here's a few dates our team currently has available.

- Wednesday, Jan. 26 from 10-11 am
- Tuesday, Feb. 1 from 1:30-2:30 pm
- Wednesday, Feb 2 from 10-11 am

You can send the invite to the EPA staff cc'ed on this email. Please provide an agenda and any additional information that may help with our discussion prior to the meeting. Also, please let me know if you will have legal counsel present, and if not can our counsel attend.

Looking forward to speaking with you.

Thanks, Eric



Eric Wortman  
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**From:** Empey Eric Harford <[Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)>  
**Sent:** Monday, January 10, 2022 2:32 PM  
**To:** Wortman, Eric <[Wortman.Eric@epa.gov](mailto:Wortman.Eric@epa.gov)>  
**Cc:** Bird, Patrick <[Bird.Patrick@epa.gov](mailto:Bird.Patrick@epa.gov)>; Kipka, Undine <[kipka.undine@epa.gov](mailto:kipka.undine@epa.gov)>; Dain, Gregory <[Dain.Greg@epa.gov](mailto:Dain.Greg@epa.gov)>; Sansevero, Christine <[Sansevero.Christine@epa.gov](mailto:Sansevero.Christine@epa.gov)>; Suhovsky Edward <[Suhovsky.Edward@deme-group.com](mailto:Suhovsky.Edward@deme-group.com)>  
**Subject:** RE: Emissions : EPA- Offshore Operational Requirements

Happy New Year Eric,







All the best for 2022! Following up on below chain of emails and our intention to set up a meeting or TEAMS call later this month, do you have any indication on when you and your team may be available for subject meeting?

We can be flexible to your schedule and would appreciate anything you can do to fit us in, in the coming weeks. Urgency from our side related to potential upgrades that may or may not be necessary based on our discussions and time to source such equipment.

Thanks so much for your attention and I look forward to your comments.

Kind regards,

Eric H. Empey | Director of Operations

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**From:** Wortman, Eric <[Wortman.Eric@epa.gov](mailto:Wortman.Eric@epa.gov)>  
**Sent:** Monday, December 20, 2021 11:00 AM  
**To:** Empey Eric Harford <[Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)>  
**Cc:** Bird, Patrick <[Bird.Patrick@epa.gov](mailto:Bird.Patrick@epa.gov)>; Kipka, Undine <[kipka.undine@epa.gov](mailto:kipka.undine@epa.gov)>; Dain, Gregory <[Dain.Greg@epa.gov](mailto:Dain.Greg@epa.gov)>; Sansevero, Christine <[Sansevero.Christine@epa.gov](mailto:Sansevero.Christine@epa.gov)>; Suhovsky Edward <[Suhovsky.Edward@deme-group.com](mailto:Suhovsky.Edward@deme-group.com)>  
**Subject:** RE: Emissions : EPA- Offshore Operational Requirements

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That sounds good, we'll check in after the New Year.

Eric

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**From:** Empey Eric Harford <[Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)>  
**Sent:** Monday, December 20, 2021 10:55 AM  
**To:** Wortman, Eric <[Wortman.Eric@epa.gov](mailto:Wortman.Eric@epa.gov)>  
**Cc:** Bird, Patrick <[Bird.Patrick@epa.gov](mailto:Bird.Patrick@epa.gov)>; Kipka, Undine <[kipka.undine@epa.gov](mailto:kipka.undine@epa.gov)>; Dain, Gregory <[Dain.Greg@epa.gov](mailto:Dain.Greg@epa.gov)>; Sansevero, Christine <[Sansevero.Christine@epa.gov](mailto:Sansevero.Christine@epa.gov)>; Suhovsky Edward <[Suhovsky.Edward@deme-group.com](mailto:Suhovsky.Edward@deme-group.com)>  
**Subject:** RE: Emissions : EPA- Offshore Operational Requirements

Eric,

Thanks for your response and understood. We can be flexible to your schedule as we'd like to start the discussions as soon as possible in the event that any relevant modifications are required to the vessels, we have as much time as possible to address them.







If you'd like we can touch base in early January and see if you have any windows closer to Mid January and/or if end of January remains the case.

Thanks again for the response and I look forward to your confirmation.

Otherwise, wishing you all a Happy Holiday Season!

Kind regards,

Eric H. Empey | Director of Operations

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**From:** Wortman, Eric <[Wortman.Eric@epa.gov](mailto:Wortman.Eric@epa.gov)>  
**Sent:** Monday, December 20, 2021 10:39 AM  
**To:** Empey Eric Harford <[Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)>  
**Cc:** Bird, Patrick <[Bird.Patrick@epa.gov](mailto:Bird.Patrick@epa.gov)>; Kipka, Undine <[kipka.undine@epa.gov](mailto:kipka.undine@epa.gov)>; Dain, Gregory <[Dain.Greg@epa.gov](mailto:Dain.Greg@epa.gov)>; Sansevero, Christine <[Sansevero.Christine@epa.gov](mailto:Sansevero.Christine@epa.gov)>; Suhovsky Edward <[Suhovsky.Edward@deme-group.com](mailto:Suhovsky.Edward@deme-group.com)>  
**Subject:** RE: Emissions : EPA- Offshore Operational Requirements

**ATTENTION:** This is an external email. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Eric,

I'd be happy to schedule a meeting with the EPA team to discuss your operations in more detail. In addition to extended time off over the holidays, I'm working to finalize a major project and I don't have a lot of availability until toward the end of January. Please let me know a few good times that your team is available toward the end of January or early February and I can check availability on our end. At this time, EPA is not fully back to an office work environment and a virtual meeting is probably best.

Thanks,

Eric

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**From:** Empey Eric Harford <[Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)>  
**Sent:** Wednesday, December 15, 2021 3:44 PM  
**To:** Wortman, Eric <[Wortman.Eric@epa.gov](mailto:Wortman.Eric@epa.gov)>  
**Cc:** Bird, Patrick <[Bird.Patrick@epa.gov](mailto:Bird.Patrick@epa.gov)>; Kipka, Undine <[kipka.undine@epa.gov](mailto:kipka.undine@epa.gov)>; Dain, Gregory <[Dain.Greg@epa.gov](mailto:Dain.Greg@epa.gov)>; Sansevero, Christine <[Sansevero.Christine@epa.gov](mailto:Sansevero.Christine@epa.gov)>; Suhovsky Edward <[Suhovsky.Edward@deme-group.com](mailto:Suhovsky.Edward@deme-group.com)>  
**Subject:** Emissions : EPA- Offshore Operational Requirements

Eric,

I hope this email finds you well. Thank you again for the valuable feedback provided below.  
In addition to our project with Vineyard Wind, we have two other Offshore Wind Project on the east coast of the US and we would like to see if you could receive us in your offices in Boston to discuss operating Foreign Flagged Construction vessels along the East Coast.






You'll note that I removed Vineyard from copy as this is more a general information meeting on compliance with EPA regulations and not necessarily specific to Vineyards Permit for our specific project with them.

Our offices are in East Boston and we would be happy to travel to your offices to meet and discuss our operations amongst the projects we have. Alternatively we can set up a TEAMS call, but it would certainly be good to meet you in person if acceptable to you and your companies policies.

I am copying our marine coordinator Ed Suhovsky, who will be our primary point of contact for compliance of our vessels while in Country. We can be available on Friday or early next week, otherwise early next year, if that is more convenient for you.

Thanks in advance for your attention and I look forward to your comments.

Kind regards,

Eric H. Empey | Director of Operations  
DEME Group | [www.deme-group.com](http://www.deme-group.com) |     

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**From:** Wortman, Eric <[Wortman.Eric@epa.gov](mailto:Wortman.Eric@epa.gov)>  
**Sent:** Tuesday, November 23, 2021 2:40 PM  
**To:** Empey Eric Harford <[Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)>  
**Cc:** Geri Edens <[gedens@vineyardwind.com](mailto:gedens@vineyardwind.com)>; Bird, Patrick <[Bird.Patrick@epa.gov](mailto:Bird.Patrick@epa.gov)>; Kipka, Undine <[kipka.undine@epa.gov](mailto:kipka.undine@epa.gov)>; Dain, Gregory <[Dain.Greg@epa.gov](mailto:Dain.Greg@epa.gov)>; Sansevero, Christine <[Sansevero.Christine@epa.gov](mailto:Sansevero.Christine@epa.gov)>  
**Subject:** RE: Permit OCS-R1-03 Vineyard Wind Wind Energy Project

**ATTENTION:** This is an external email. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Eric,

Based on your email below, EPA understands that the main installation vessel for the Vineyard Wind 1 project can utilize LNG or MGO as a fuel source. When the engine is utilizing LNG as fuel, it can meet Tier 3 emission limits, but when the engine is burning MGO it is only capable of meeting Tier 2 emission limits. Your email also asserts that the capacity for LNG offshore bunkering does not currently exist in the region where the project is located, and indicates Vineyard Wind 1's intent to use MGO fuel that is capable of meeting Tier 2 emission limits. EPA is providing the information below to clarify the permit requirements for this vessel.

EPA understands the “main installation vessel” is a foreign-flagged vessel that meets the definition of a *Main WTG Installation Vessel* as defined in Section III of the Permit. Permit Condition IV.D.5 requires the engines on the Main WTG Installation Vessel to comply with IMO or EPA Tier 3 marine engine standards in Table 2 of the permit while the vessel is operating as an OCS source as defined in 40 CFR part 55. Permit condition IV.D.5 allows the use of an engine meeting lower tiered emission limits (i.e. Tier 2 or Tier 1) if certain conditions are met. Specifically, a lower tiered engine may be used if one of the following conditions are met:

- a.) a vessel with a higher Tier engine is not available within two hours of when the vessel must be deployed; or
- b.) The total emissions associated with the use of a vessel with the higher IMO or EPA Tier engine(s) would be greater than the total emissions associated with the use of the vessel with the next lower IMO or EPA Tier engine(s). For purposes of this subparagraph, when determining the total emissions associated with the use of a vessel with a particular engine, the Permittee may include the emissions of the vessel that would occur when the vessel would be in transit to the WDA from the vessel’s starting location.

Section 6.3.3.1 of Vineyard Wind 1’s August 17, 2018 permit application discusses fuel selection as Best Available Control Technology (BACT) for marine compression ignition engines on vessels. In the application, Vineyard Wind 1 indicated that the use of LNG was not feasible because of the lack of bunkering infrastructure for natural gas. Vineyard Wind 1 also stated that at the time of application, none of these vessels identified worldwide as meeting the criteria for the main installation vessel were found to operate on LNG. Based on this information, EPA concurred with Vineyard Wind 1 in the Fact Sheet for the draft permit that the use of natural gas is technically infeasible for the internal combustion engines operating on the OCS sources. Since that time, and based on your email, it appears a main installation vessel capable of using LNG fuel became available for use by Vineyard Wind 1 for the project. However, the feasibility of natural gas use in engines on this vessel may still be impeded by the lack of LNG bunkering infrastructure in the Northeastern United States.

As discussed in the Fact Sheet for the draft permit, EPA’s BACT and Lowest Achievable Emission Rate (LAER) analysis considered the complexity and constraints involved in the contracting process to procure vessels for the windfarm’s construction. Because of these factors and the unique nature of constructing an offshore windfarm, EPA’s permit requires Vineyard Wind 1 to use the cleanest vessels available from the contractors at the “time of deployment” based on the availability of those vessels from the contractors Vineyard Wind 1 has already had to retain. The Fact Sheet also states that “time of deployment” is impacted by several factors, including but not limited to, construction timetable and contractual obligations.

In Vineyard Wind 1’s supplemental permit application material dated May 23, 2019, Vineyard Wind 1 indicated that a vessel is “available” if it is 1) capable of performing the work needed for the Project’s specific activities in accordance with the Project’s permits, environmental commitments, and other regulatory requirements (including the Jones Act), 2) is within the primary contractors and their subcontractors’ fleet of vessels, and 3) can be secured for the time period needed to maintain Vineyard Wind 1’s construction schedule.

Based on the information in Vineyard Wind 1’s permit application materials and the Fact Sheet for the draft permit, EPA believes it is reasonable to conclude that the use of LNG fuel to meet Tier 3 emission limits is not currently “available” due to the lack of LNG offshore bunkering capability in the Northeast region of the U.S. where the project is located. However, we note that the Permit requires the highest tiered engine available at the time of deployment. Because of the dual-fuel capability of the main installation vessel, Vineyard Wind 1 is required to meet the Tier 3 emission limits using LNG fuel if LNG offshore bunkering becomes feasible with 2 hours of when the vessel must be deployed. EPA concurs that the use of MGO fuel to meet Tier 2 emission limits as required by the permit is allowed if LNG offshore bunkering is not feasible at the time of vessel deployment for commencing construction activities. Consistent with the recordkeeping requirements in the permit, Vineyard Wind 1 will need to document its justification for the use of a vessel with lower Tier certified engines.

I hope you find this information helpful for your project. Please let me know if you have additional questions.

Thank you.

Eric

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Eric Wortman  
U.S. EPA Region 1  
5 Post Office Square, Suite 100  
Boston, Massachusetts 02109  
Telephone: (617) 918-1624 | Email: [wortman.eric@epa.gov](mailto:wortman.eric@epa.gov)

---

**From:** Wortman, Eric  
**Sent:** Wednesday, November 10, 2021 10:31 AM  
**To:** [Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)  
**Cc:** Geri Edens <[gedens@vineyardwind.com](mailto:gedens@vineyardwind.com)>; Bird, Patrick <[Bird.Patrick@epa.gov](mailto:Bird.Patrick@epa.gov)>  
**Subject:** RE: Permit OCS-R1-03 Vineyard Wind Wind Energy Project

Good morning Eric,

I received your request below and am looking into your question. Given the holiday tomorrow, I may not be able to respond until next week. I'm also copying the air permitting contact for Vineyard Wind 1, Geri Edens, for awareness. Thanks for your patience.

Eric

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Eric Wortman  
U.S. EPA Region 1  
5 Post Office Square, Suite 100  
Boston, Massachusetts 02109  
Telephone: (617) 918-1624 | Email: [wortman.eric@epa.gov](mailto:wortman.eric@epa.gov)

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**From:** Empey Eric Harford <[Empey.Eric@deme-group.com](mailto:Empey.Eric@deme-group.com)>  
**Sent:** Monday, November 8, 2021 9:50 AM  
**To:** Schwartz, Sandra <[Schwartz.Sandra@epa.gov](mailto:Schwartz.Sandra@epa.gov)>  
**Subject:** Permit OCS-R1-03

Good Morning Sandra,

Reference is made to the subject Permit issued to Vineyard Wind for their Wind Energy Project.

My name is Eric Empey and I am the Director of Operations for DEME OFFSHORE US, the contractor who will execute the installation of the Foundations and Turbines for Vineyard Wind.

I have some questions regarding the permit specifically in regards to the Tier II / Tier III requirements for the installation vessels, that I was hoping you could clarify and/or point me in the direction of the correct person to discuss.

Our main installation vessel for the foundation installation is both LNG powered and Diesel driven, but only meets Tier III under LNG mode. There is language in the permit as it pertains to allowing dispensation on this requirements if

alternative assets are not available in the region, but I would like to discuss this in order to avoid any doubts on this topic.

Our current plan is to run the vessel on MGO, because there is no offshore bunkering currently in place in the Northeast and the concerns that its permitting and availability in the market may not be in place yet.

Thanks in advance for your attention and I look forward to your comments.

Kind regards,

**Eric H. Empey** | Director of Operations

DEME Offshore US LLC

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